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EXAMINER	
DICKERSON, CHAD S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/660,651	FUKUDA, MASATO	
	Examiner	Art Unit	
	CHAD DICKERSON	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,8 and 10-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,8 and 10-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/30/2009 has been entered.

Response to Arguments.

2. Applicant's arguments with respect to claims 1, 8 and 10 have been considered but are moot in view of the new ground(s) of rejection. The Amendment to the claims has necessitated the new ground(s) of rejection. However, the same references of Holmstead and Morita are still being applied. Additionally, the reference of Kirk '518 is being applied to cure any deficiencies of the previously applied references regarding the claim feature of activating a plug-in.

3. Applicant's arguments, see page 10, filed 4/30/2009, with respect to the 101 rejections have been fully considered and are persuasive. The 101 rejection of claim 10 has been withdrawn.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 8 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Re claims 1, 8 and 10: The Examiner reviewed the specification in order to better understand the claim Amendments presented in the response on 4/30/2009. When reviewing the specification in order to find support for the Amendments, the Examiner noticed that "*a command from a web server*" is not specifically mentioned in the specification. Since no support was given in the specification regarding the newly added claim limitations and since this feature is not clearly shown in the specification, this claim feature is considered as new matter. However, mentioned in Publication of the application in paragraph [0048], Applicant's system discloses an html file being sent to the client device in response to a request from the client device. However, it does not state that a web server commands a client to do something. It is clear to the Examiner that a command through a file sent from a web server is different from a command being sent from a web server without the use of a file. Clarification is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 8 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmstead '905 (US Pub 2004/0021905) in view of Morita '467 (USP 5930467) and Kirk '518 (US pub 2003/0088518).

Re claim 1: Holmstead '905 discloses an information processing apparatus that has a web browser and displays a screen based on a predetermined file provided from a web server through a network (i.e. a graphical user interface (114) sends commands to the printer device to operate the control system (306) in a normal or schedule mode. This controls the printer since the control system is commanded to download print job elements specific to the mode use in order to print a print job that is generated from the print job elements, which is analogous to a plurality of image data; see paragraphs [0033] and [0060]-[0071]), comprising:

a first list creator that creates a first list of a plurality of image data selected designated to be printed (i.e. in the system, the control system is used to create one or a series of print job elements that are used to make up print job data that is to be acquired from a remote site, considered as a server device. The first list is in regards to the print job ticket (500) generated and stored in the input buffer (304). The job ticket stored in the input buffer represents a plurality of image data that are designated to be

printed and can be acquired from a server device if needed; see figs. 3-5; paragraphs [0032]-[0044]), using the plug-in which is activated (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]);

a cache memory that stores printed image data, which has been printed during previous rounds of printing (i.e. in Holmstead '905 the system can be configured to have a components of the system in a printer (100), or as a part of a host computer (206) in association with a printer (100). The host computer (206) is considered as the information processing apparatus, which has an image data memory (302). The local memory (302) has print job elements that can be transmitted to the printer (100), or acquired from the remote site, in association with the host computer (206). The elements downloaded from the remote site is stored in the local memory, which is located in the printer, and the local memory has print job information that has been designated for printing and acquired from the server device. The information stored is also from previous jobs that have been printed on the printer and the step (414) is used to store a print ready document on the printer with the previously printed job; see figs. 2 and 3; paragraphs [0032]-[0044]);

a second list creator creates a second list of the printed image data stored in said cache memory (i.e. on the remote site (202), the print job components, considered as

image data information, is stored. This same information that is stored is also in the print instruction that is acquired by the control system (306). The local memory is used to store some of the print job components that have already been printed and these print job components are analogous to a plurality of image data. The local memory (302) is used to compare its components against the print job ticket temporarily stored in the input buffer, which is where the first listing of the print job components is located. Also, the local memory stores another collection of information that is comprised of elements in a job that have already been printed and the collection of information is comprised of printed image data that is stored in the local memory. Since the local memory can be comprised of EEPROM, RAM, ROM and a disk drive, multiple storage units can be used for caching and storing the information that is used to identify the cached data; see figs. 2, 3 and 5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices. Since arrangements of data on different memory devices occur, the feature of having a program list this information in different memory devices is performed; see paragraphs [0017]-[0020] and [0031]-[0034]);

a comparison unit that compares the first list and the second list (i.e. when the data is first received by the printer, or the host computer that is associated with the printer, the data is temporarily stored in the input buffer (304). The input buffer (304)

holds the print job ticket (500) and compares the print job ticket (500) components with the components stored in the local memory (302). This comparison is between the data stored in the input buffer (304) and the data stored in the local memory (302) to see if the data matches up to the print job ticket's (500) listed components; see figs. 2-5; paragraphs [0032]-[0044]), after next images to be printed are selected and the first list is updated before performing the print processing for the next images using the plug-in (i.e. in the system, the memories storing the image data are compared to one another after the user identifies another print job to print and the input buffer (304) is updated by the set of print elements that were not totally present in the print job designated. Once the input buffer contains the print job elements, then the job elements are compiled in a complete document under the direction of the programs in the printer device or the host computer connected to the print device; see paragraphs [0033]-[0044]);

an acquisition unit that acquires, from the web server, the selected image data from the web server (i.e. the Holmstead reference acquires image data identified by job element information from a server device through a network card that facilitates network communication. Since the internal components in the printer can be in a host computer coupled to a printer, the functionality of the system using a host computer with the input buffer and local memory is an alternative implementation of the method of printing image data. The input buffer inside the host computer, considered as the first list, is used to include certain job elements while the local memory does not contain the missing job elements, which is considered as the second list. Once the image data is acquired from the remote sites, or server, the image data is combined into a complete

job in the input buffer and printed. The job elements that were added to job that were the missing elements are then stored in the local memory, considered as the cache memory; see paragraphs [0029]-[0044]);

a print processor that performs print processing to the image data stored in said cache memory, using the plug-in (i.e. the compilation of the missing job elements with the elements contained in the local memory is considered as print processing and this processing is taken place by executing a program that has the printer, or system with the host computer connected to the printer, perform the processing of the image data; see paragraphs [0029]-[0044]);

an updater that updates the second list on the first list after the acquisition unit acquires the image data from the server device (i.e. in the system, the local memory is updated with the information that has been obtained by the system and temporarily stored on the input buffer after the image data is received from the server device on the network; see paragraphs [0033]-[0044]);

a deletion unit that deletes, from the cache memory, the image data which is not included in the first list but included in the second list (i.e. in the system, the information stored in the different directories can be overwritten or erased. As disclosed in Holmstead, the image data represented through print job elements can be erased after a certain period of time. When the system has seen that the job is a certain age, it may delete the job. This job can be a job that is not designated to be printed at the time the job reaches a certain age (i.e. 30 days old). The system has stored the image data in the local memory since the job has been printed in the past. With the job being

transmitted from the host computer's local memory, considered as the cache memory, to the printer earlier than the thirty day job threshold and not being designated at the time of the thirty day time period, the feature of deleting information from the local memory is performed; see paragraph [0051]);

wherein the acquisition unit does not acquire image data which is included in the first and second lists (i.e. in the Holmstead system, the unit that acquires the print job elements does not acquire information that the system already contains. Once the print job elements are present in the input buffer or the local memory are present, the system does not go back to the server to reacquire this same information since it is already present; see paragraphs [0029]-[0044]).

However, Holmstead '905 fails to specifically teach an updater that updates the second list on the first list and using the plug-in which is activated in response to a command from the Web server.

However, this is well known in the art as evidenced by Morita '467. Morita '467 discloses an updater that updates the second list on the first list (i.e. However, the Morita reference, like the Holmstead reference, contains a system that involves a host computer to transfer printing information to a printing device (same field of endeavor). In the system, if information on the file allocation table (26) on the RAM (17) is modified by having data written or erased from the table, the update flag related to the updating of the RAM is set to one. Next, the CPU (5) checks to see if the update flag is 1 in order to determine if the hard disk (8) needs to be updated in conformity with the RAM. In this case, if something is written on the RAM, then the same information is added on the

hard disk in order for both storage devices to be consistent in reflecting the same data. The Morita reference contains a hard disk with a RAM, considered as two memory devices that contain a collection of information pertaining to image data. The Morita reference updates, or writes, the information of the RAM (17) on the hard disk device (8) to ensure that both device memories conform to each other; see figs. 5-10; col. 8, line 10 - col. 10, line 65).

Therefore, in view of Morita '467, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of an updater that updates the second list on the first list in order to have content relating to file information on one storage device conform with the content on another storage device (as stated in Morita '467 col. 9, lines 20-32).

However, the combination of Holmstead '905 and Morita '467 fails to specifically teach using the plug-in which is activated in response to a command from the Web server.

However, this is well known in the art as evidenced by Kirk '518. Kirk '518 discloses using the plug-in which is activated in response to a command from the Web server (i.e. the system of Kirk is similar to the system of Holmstead since both inventions involve receiving information from a web server for processing (same field of endeavor). However, the system of Kirk contains the feature of having a MIME type document activate a plug-in on the host computer's browser, or, if the plug-in is not currently loaded, commands the host computer to download the plug-in. Based on the MIME type information from the web server that commands the host computer to

activate a plug-in, the system of Kirk performs the above feature; see paragraphs [0009] and [0010]).

Therefore, in view of Kirk '518, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of using the plug-in which is activated in response to a command from the Web server, incorporated in the device of Holmstead '905, as modified by the features of Morita '467, in order to have a web server control the activities of a web browser on a computer (as stated in Kirk '518 paragraph [0010]).

Re claim 8: Holmstead '905 discloses a computer-readable storage medium storing a function extension program for causing a computer to have a web browser and displays a screen based on a predetermined file provided from a web server through a network (i.e. a graphical user interface (114) sends commands to the printer device to operate the control system (306) in a normal or schedule mode. This controls the printer since the control system is commanded to download print job elements specific to the mode use in order to print a print job that is generated from the print job elements, which is analogous to a plurality of image data; see paragraphs [0033] and [0060]-[0071]), the program causing a computer to:

create a first list of for a plurality of image data selected to be printed (i.e. in the system, the control system is used to create one or a series of print job elements that are used to make up print job data that is to be acquired from a remote site, considered as a server device. The first list is in regards to the print job ticket (500) generated and

stored in the input buffer (304). The job ticket stored in the input buffer represents a plurality of image data that are designated to be printed and can be acquired from a server device if needed; see figs. 3-5; paragraphs [0032]-[0044]), using the plug-in which is activated (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]);

store in a cache memory printed image data which has been printed during previous rounds of printing (i.e. in Holmstead '905 the system can be configured to have a components of the system in a printer (100), or as a part of a host computer (206) in association with a printer (100). The host computer (206) is considered as the information processing apparatus, which has an image data memory (302). The local memory (302) has print job elements that can be transmitted to the printer (100), or acquired from the remote site, in association with the host computer (206). The elements downloaded from the remote site is stored in the local memory, which is located in the printer, and the local memory has print job information that has been designated for printing and acquired from the server device. The information stored is also from previous jobs that have been printed on the printer and the step (414) is used to store a print ready document on the printer with the previously printed job; see figs. 2 and 3; paragraphs [0032]-[0044]);

create a second list of the printed image data stored in said cache memory (i.e. on the remote site (202), the print job components, considered as image data information, is stored. This same information that is stored is also in the print instruction that is acquired by the control system (306). The local memory is used to store some of the print job components that have already been printed and these print job components are analogous to a plurality of image data. The local memory (302) is used to compare its components against the print job ticket temporarily stored in the input buffer, which is where the first listing of the print job components is located. Also, the local memory stores another collection of information that is comprised of elements in a job that have already been printed and the collection of information is comprised of printed image data that is stored in the local memory. Since the local memory can be comprised of EEPROM, RAM, ROM and a disk drive, multiple storage units can be used for caching and storing the information that is used to identify the cached data; see figs. 2, 3 and 5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices. Since arrangements of data on different memory devices occur, the feature of having a program list this information in different memory devices is performed; see paragraphs [0017]-[0020] and [0031]-[0034]);

compare the first list and the second list (i.e. when the data is first received by the printer, or the host computer that is associated with the printer, the data is temporarily stored in the input buffer (304). The input buffer (304) holds the print job ticket (500) and compares the print job ticket (500) components with the components stored in the local memory (302). This comparison is between the data stored in the input buffer (304) and the data stored in the local memory (302) to see if the data matches up to the print job ticket's (500) listed components; see figs. 2-5; paragraphs [0032]-[0044]), after next images to be printed are selected and the first list is updated before performing the print processing for the next images using the plug-in (i.e. in the system, the memories storing the image data are compared to one another after the user identifies another print job to print and the input buffer (304) is updated by the set of print elements that were not totally present in the print job designated. Once the input buffer contains the print job elements, then the job elements are compiled in a complete document under the direction of the programs in the printer device or the host computer connected to the print device; see paragraphs [0033]-[0044]); and

acquire, from the web server device, the selected image data from the web server (i.e. the Holmstead reference acquires image data identified by job element information from a server device through a network card that facilitates network communication. Since the internal components in the printer can be in a host computer coupled to a printer, the functionality of the system using a host computer with the input buffer and local memory is an alternative implementation of the method of printing image data. The input buffer inside the host computer, considered as the first list, is

used to include this job element information while the local memory does not contain the job element information, which is considered as the second list. Once the image data is acquired from the remote sites, or server, the image data is combined into a complete job in the input buffer and printed. The job elements that were added to job that were the missing elements are then stored in the local memory, considered as the cache memory; see paragraphs [0029]-[0044]);

perform print processing to the image data stored in said cache memory, using the plug-in (i.e. the compilation of the missing job elements with the elements contained in the local memory is considered as print processing and this processing is taken place by executing a program that has the printer, or system with the host computer connected to the printer, perform the processing of the image data; see paragraphs [0029]-[0044]);

delete, from the cache memory, image data which is not included in the first list but included in the second list (i.e. in the system, the information stored in the different directories can be overwritten or erased. As disclosed in Holmstead, the image data represented through print job elements can be erased after a certain period of time. When the system has seen that the job is a certain age, it may delete the job. This job can be a job that is not designated to be printed at the time the job reaches a certain age (i.e. 30 days old). The system has stored the image data in the local memory since the job has been printed in the past. With the job being transmitted from the host computer's local memory, considered as the cache memory, to the printer earlier than the thirty day job threshold and not being designated at the time of the thirty day time

period, the feature of deleting information from the local memory is performed; see paragraph [0051]); and

update the second list after the image data from the server device is acquired in the acquisition step (i.e. in the system, the local memory is updated with the information that has been obtained by the system and temporarily stored on the input buffer after the image data is received from the server device on the network; see paragraphs [0033]-[0044]);

wherein the acquisition step does not acquire image data which is included in the first and second lists (i.e. in the Holmstead system, the unit that acquires the print job elements does not acquire information that the system already contains. Once the print job elements are present in the input buffer or the local memory are present, the system does not go back to the server to reacquire this same information since it is already present; see paragraphs [0029]-[0044]).

However, Holmstead '905 fails to specifically teach update the second list on the first list and using the plug-in which is activated in response to a command from the Web server.

However, this is well known in the art as evidenced by Morita '467. Morita '467 discloses update the second list on the first list (i.e. However, the Morita reference, like the Holmstead reference, contains a system that involves a host computer to transfer printing information to a printing device (same field of endeavor). In the system, if information on the file allocation table (26) on the RAM (17) is modified by having data written or erased from the table, the update flag related to the updating of the RAM is

set to one. Next, the CPU (5) checks to see if the update flag is 1 in order to determine if the hard disk (8) needs to be updated in conformity with the RAM. In this case, if something is written on the RAM, then the same information is added on the hard disk in order for both storage devices to be consistent in reflecting the same data. The Morita reference contains a hard disk with a RAM, considered as two memory devices that contain a collection of information pertaining to image data. The Morita reference updates, or writes, the information of the RAM (17) on the hard disk device (8) to ensure that both device memories conform to each other; see figs. 5-10; col. 8, line 10 - col. 10, line 65).

Therefore, in view of Morita '467, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of update the second list on the first list in order to have content relating to file information on one storage device conform with the content on another storage device (as stated in Morita '467 col. 9, lines 20-32).

However, the combination of Holmstead '905 and Morita '467 fails to specifically teach using the plug-in which is activated in response to a command from the Web server.

However, this is well known in the art as evidenced by Kirk '518. Kirk '518 discloses using the plug-in which is activated in response to a command from the Web server (i.e. the system of Kirk is similar to the system of Holmstead since both inventions involve receiving information from a web server for processing (same field of endeavor). However, the system of Kirk contains the feature of having a MIME type

document activate a plug-in on the host computer's browser, or, if the plug-in is not currently loaded, commands the host computer to download the plug-in. Based on the MIME type information from the web server that commands the host computer to activate a plug-in, the system of Kirk performs the above feature; see paragraphs [0009] and [0010]).

Therefore, in view of Kirk '518, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of using the plug-in which is activated in response to a command from the Web server, incorporated in the device of Holmstead '905, as modified by the features of Morita '467, in order to have a web server control the activities of a web browser on a computer (as stated in Kirk '518 paragraph [0010]).

Re claim 10: Holmstead '905 discloses an information processing method of controlling an information processing apparatus and displays a screen based on a predetermined file provided from a web server through a network (i.e. a graphical user interface (114) sends commands to the printer device to operate the control system (306) in a normal or schedule mode. This controls the printer since the control system is commanded to download print job elements specific to the mode use in order to print a print job that is generated from the print job elements, which is analogous to a plurality of image data; see paragraphs [0033] and [0060]-[0071]), comprising:

a step of creating a first list of a plurality of image data selected to be printed (i.e. in the system, the control system is used to create one or a series of print job elements

that are used to make up print job data that is to be acquired from a remote site, considered as a server device. The first list is in regards to the print job ticket (500) generated and stored in the input buffer (304). The job ticket stored in the input buffer represents a plurality of image data that are designated to be printed and can be acquired from a server device if needed; see figs. 3-5; paragraphs [0032]-[0044]), using the plug-in which is activated (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]);

a step of creating storing in a cache memory image data, which has been printed (i.e. in Holmstead '905 the system can be configured to have a components of the system in a printer (100), or as a part of a host computer (206) in association with a printer (100). The host computer (206) is considered as the information processing apparatus, which has an image data memory (302). The local memory (302) has print job elements that can be transmitted to the printer (100), or acquired from the remote site, in association with the host computer (206). The elements downloaded from the remote site is stored in the local memory, which is located in the printer, and the local memory has print job information that has been designated for printing and acquired from the server device. The information stored is also from previous jobs that have been printed on the printer and the step (414) is used to store a print ready document

on the printer with the previously printed job; see figs. 2 and 3; paragraphs [0032]-[0044]);

a second step of creating a second list of the printed image data stored in said cache memory (i.e. on the remote site (202), the print job components, considered as image data information, is stored. This same information that is stored is also in the print instruction that is acquired by the control system (306). The local memory is used to store some of the print job components that have already been printed and these print job components are analogous to a plurality of image data. The local memory (302) is used to compare its components against the print job ticket temporarily stored in the input buffer, which is where the first listing of the print job components is located. Also, the local memory stores another collection of information that is comprised of elements in a job that have already been printed and the collection of information is comprised of printed image data that is stored in the local memory. Since the local memory can be comprised of EEPROM, RAM, ROM and a disk drive, multiple storage units can be used for caching and storing the information that is used to identify the cached data; see figs. 2, 3 and 5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices. Since arrangements of data on different memory devices occur, the feature of having a

program list this information in different memory devices is performed; see paragraphs [0017]-[0020] and [0031]-[0034]);

a step of comparing the first list and the second list (i.e. when the data is first received by the printer, or the host computer that is associated with the printer, the data is temporarily stored in the input buffer (304). The input buffer (304) holds the print job ticket (500) and compares the print job ticket (500) components with the components stored in the local memory (302). This comparison is between the data stored in the input buffer (304) and the data stored in the local memory (302) to see if the data matches up to the print job ticket's (500) listed components; see figs. 2-5; paragraphs [0032]-[0044]), after next images to be printed are selected and the first list is updated before performing the print processing for the next images using the plug-in (i.e. in the system, the memories storing the image data are compared to one another after the user identifies another print job to print and the input buffer (304) is updated by the set of print elements that were not totally present in the print job designated. Once the input buffer contains the print job elements, then the job elements are compiled in a complete document under the direction of the programs in the printer device or the host computer connected to the print device; see paragraphs [0033]-[0044]);

a step of acquiring, from the web server device, the selected image data from the web server (i.e. the Holmstead reference acquires image data identified by job element information from a server device through a network card that facilitates network communication. Since the internal components in the printer can be in a host computer coupled to a printer, the functionality of the system using a host computer with the input

buffer and local memory is an alternative implementation of the method of printing image data. The input buffer inside the host computer, considered as the first list, is used to include this job element information while the local memory does not contain the job element information, which is considered as the second list. Once the image data is acquired from the remote sites, or server, the image data is combined into a complete job in the input buffer and printed. The job elements that were added to job that were the missing elements are then stored in the local memory, considered as the cache memory; see paragraphs [0029]-[0044]);

a step of performing print processing to the image data stored in said cache memory, using the plug-in (i.e. the compilation of the missing job elements with the elements contained in the local memory is considered as print processing and this processing is taken place by executing a program that has the printer, or system with the host computer connected to the printer, perform the processing of the image data; see paragraphs [0029]-[0044]);

a step of deleting, from the cache memory, image data which is not included in the first list but included in the second list (i.e. in the system, the information stored in the different directories can be overwritten or erased. As disclosed in Holmstead, the image data represented through print job elements can be erased after a certain period of time. When the system has seen that the job is a certain age, it may delete the job. This job can be a job that is not designated to be printed at the time the job reaches a certain age (i.e. 30 days old). The system has stored the image data in the local memory since the job has been printed in the past. With the job being transmitted from

the host computer's local memory, considered as the cache memory, to the printer earlier than the thirty day job threshold and not being designated at the time of the thirty day time period, the feature of deleting information from the local memory is performed; see paragraph [0051]); and

a step of updating the second list after the image data from the server device is acquired in the acquisition step (i.e. in the system, the local memory is updated with the information that has been obtained by the system and temporarily stored on the input buffer after the image data is received from the server device on the network; see paragraphs [0033]-[0044]);

wherein the acquisition step does not acquire image data which is included in the first and second lists (i.e. in the Holmstead system, the unit that acquires the print job elements does not acquire information that the system already contains. Once the print job elements are present in the input buffer or the local memory are present, the system does not go back to the server to reacquire this same information since it is already present; see paragraphs [0029]-[0044]).

However, Holmstead '905 fails to specifically teach updating the second list on the first list and using the plug-in which is activated in response to a command from the Web server.

However, this is well known in the art as evidenced by Morita '467. Morita '467 discloses updating the second list on the first list (i.e. However, the Morita reference, like the Holmstead reference, contains a system that involves a host computer to transfer printing information to a printing device (same field of endeavor). In the system,

if information on the file allocation table (26) on the RAM (17) is modified by having data written or erased from the table, the update flag related to the updating of the RAM is set to one. Next, the CPU (5) checks to see if the update flag is 1 in order to determine if the hard disk (8) needs to be updated in conformity with the RAM. In this case, if something is written on the RAM, then the same information is added on the hard disk in order for both storage devices to be consistent in reflecting the same data. The Morita reference contains a hard disk with a RAM, considered as two memory devices that contain a collection of information pertaining to image data. The Morita reference updates, or writes, the information of the RAM (17) on the hard disk device (8) to ensure that both device memories conform to each other; see figs. 5-10; col. 8, line 10 - col. 10, line 65).

Therefore, in view of Morita '467, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of updating the second list on the first list in order to have content relating to file information on one storage device conform with the content on another storage device (as stated in Morita '467 col. 9, lines 20-32).

However, the combination of Holmstead '905 and Morita '467 fails to specifically teach using the plug-in which is activated in response to a command from the Web server.

However, this is well known in the art as evidenced by Kirk '518. Kirk '518 discloses using the plug-in which is activated in response to a command from the Web server (i.e. the system of Kirk is similar to the system of Holmstead since both

inventions involve receiving information from a web server for processing (same field of endeavor). However, the system of Kirk contains the feature of having a MIME type document activate a plug-in on the host computer's browser, or, if the plug-in is not currently loaded, commands the host computer to download the plug-in. Based on the MIME type information from the web server that commands the host computer to activate a plug-in, the system of Kirk performs the above feature; see paragraphs [0009] and [0010]).

Therefore, in view of Kirk '518, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of using the plug-in which is activated in response to a command from the Web server, incorporated in the device of Holmstead '905, as modified by the features of Morita '467, in order to have a web server control the activities of a web browser on a computer (as stated in Kirk '518 paragraph [0010]).

Re Claim 11: Holmstead '905 discloses an information processing apparatus that has a Web browser and displays a screen based on a predetermined file provided from a Web server through a network, comprising:

a selector that selects a plurality of image data to be printed according to a user operation through the screen (i.e. a graphical user interface (114) sends commands to the printer device to operate the control system (306) in a normal or schedule mode. Since the user is able to designate a print job with multiple elements for a scheduled mode for printing, this is considered as the screen the user operates to select job

elements for processing. The modes selected control the printer since the control system is commanded to download print job elements specific to the mode use in order to print a print job that is generated from the print job elements, which is analogous to a plurality of image data; see paragraphs [0033] and [0060]-[0071]);

an activator that activates a plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]);

a fist list generator that generates a first list which lists the selected image data (i.e. in the system, the control system is used to create one or a series of print job elements that are used to make up print job data that is to be acquired from a remote site, considered as a server device. The first list is in regards to the print job ticket (500) generated and stored in the input buffer (304). The job ticket stored in the input buffer represents a plurality of image data that are designated to be printed and can be acquired from a server device if needed; see figs. 3-5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]);

an acquisition unit that acquires the selected image data from the Web server using the plug-in (i.e. the Holmstead reference acquires image data identified by job element information from a server device through a network card that facilitates network communication. Since the internal components in the printer can be in a host computer coupled to a printer, the functionality of the system using a host computer with the input buffer and local memory is an alternative implementation of the method of printing image data. The input buffer inside the host computer, considered as the first list, is used to include this job element information while the local memory does not contain the job element information, which is considered as the second list. Once the image data is acquired from the remote sites, or server, the image data is combined into a complete job in the input buffer and printed. The job elements that were added to job that were the missing elements are then stored in the local memory, considered as the cache memory. These job elements were obtained through the execution of a program that stored received data from the web server; see paragraphs [0029]-[0044]);

a memory controller that controls a cache memory to store the obtained image data using the plug-in (i.e. in Holmstead '905 the system can be configured to have a components of the system in a printer (100), or as a part of a host computer (206) in association with a printer (100). The host computer (206) is considered as the information processing apparatus, which has an image data memory (302). The local memory (302) has print job elements that can be transmitted to the printer (100), or acquired from the remote site, in association with the host computer (206). The elements downloaded from the remote site is stored in the local memory, which is

located in the printer, and the local memory has print job information that has been designated for printing and acquired from the server device. The information stored is also from previous jobs that have been printed on the printer and the step (414) is used to store a print ready document on the printer with the previously printed job. The controller in the system controls the storing of data in the local memory; see figs. 2 and 3; paragraphs [0032]-[0044]);

a second list generator that generates a second list of the image data stored in the cache memory (i.e. on the remote site (202), the print job components, considered as image data information, is stored. This same information that is stored is also in the print instruction that is acquired by the control system (306). The local memory is used to store some of the print job components that have already been printed and these print job components are analogous to a plurality of image data. The local memory (302) is used to compare its components against the print job ticket temporarily stored in the input buffer, which is where the first listing of the print job components is located. Also, the local memory stores another collection of information that is comprised of elements in a job that have already been printed and the collection of information is comprised of printed image data that is stored in the local memory. Since the local memory can be comprised of EEPROM, RAM, ROM and a disk drive, multiple storage units can be used for caching and storing the information that is used to identify the cached data; see figs. 2, 3 and 5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used

to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices. Since arrangements of data on different memory devices occur, the feature of having a program list this information in different memory devices is performed; see paragraphs [0017]-[0020] and [0031]-[0034]);

a print processor that performs print processing to the image data stored in the cache memory using the plug-in (i.e. the compilation of the missing job elements with the elements contained in the local memory is considered as print processing and this processing is taken place by executing a program that has the printer, or system with the host computer connected to the printer, perform the processing of the image data; see paragraphs [0029]-[0044]);

a comparison unit that compares the first list with the second list (i.e. when the data is first received by the printer, or the host computer that is associated with the printer, the data is temporarily stored in the input buffer (304). The input buffer (304) holds the print job ticket (500) and compares the print job ticket (500) components with the components stored in the local memory (302). This comparison is between the data stored in the input buffer (304) and the data stored in the local memory (302) to see if the data matches up to the print job ticket's (500) listed components; see figs. 2-5; paragraphs [0032]-[0044]), after next images to be printed are selected and the first list is updated before performing the print processing for the next images using the plug-in (i.e. in the system, the memories storing the image data are compared to one another after the user identifies another print job to print and the input buffer (304) is updated by

the set of print elements that were not totally present in the print job designated. Once the input buffer contains the print job elements, then the job elements are compiled in a complete document under the direction of the programs in the printer device or the host computer connected to the print device; see paragraphs [0033]-[0044]);

a deletion controller that controls the cache memory to delete image data which is not included in the first list but included in the second list (i.e. in the system, the information stored in the different directories can be overwritten or erased. As disclosed in Holmstead, the image data represented through print job elements can be erased after a certain period of time. When the system has seen that the job is a certain age, it may delete the job. This job can be a job that is not designated to be printed at the time the job reaches a certain age (i.e. 30 days old). The system has stored the image data in the local memory since the job has been printed in the past. With the job being transmitted from the host computer's local memory, considered as the cache memory, to the printer earlier than the thirty day job threshold and not being designated at the time of the thirty day time period, the feature of deleting information from the local memory is performed; see paragraph [0051]); and

an updater that updates the second list after the image data is deleted from the cache memory (i.e. in the system, the local memory is updated with the information that has been obtained by the system and temporarily stored on the input buffer after the image data is received from the server device on the network; see paragraphs [0033]-[0044]),

wherein the acquisition unit does not acquire image data which is included in the first and second lists (i.e. in the Holmstead system, the unit that acquires the print job elements does not acquire information that the system already contains. Once the print job elements are present in the input buffer or the local memory are present, the system does not go back to the server to reacquire this same information since it is already present; see paragraphs [0029]-[0044]).

However, Holmstead '905 fails to specifically teach updates the second list on the first list and an activator that activates a plug-in in response to a command described in the predetermined file.

However, this is well known in the art as evidenced by Morita '467. Morita '467 discloses updates the second list on the first list (i.e. However, the Morita reference, like the Holmstead reference, contains a system that involves a host computer to transfer printing information to a printing device (same field of endeavor). In the system, if information on the file allocation table (26) on the RAM (17) is modified by having data written or erased from the table, the update flag related to the updating of the RAM is set to one. Next, the CPU (5) checks to see if the update flag is 1 in order to determine if the hard disk (8) needs to be updated in conformity with the RAM. In this case, if something is written on the RAM, then the same information is added on the hard disk in order for both storage devices to be consistent in reflecting the same data. The Morita reference contains a hard disk with a RAM, considered as two memory devices that contain a collection of information pertaining to image data. The Morita reference updates, or writes, the information of the RAM (17) on the hard disk device (8) to ensure

that both device memories conform to each other; see figs. 5-10; col. 8, line 10 - col. 10, line 65).

Therefore, in view of Morita '467, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of updating the second list on the first list in order to have content relating to file information on one storage device conform with the content on another storage device (as stated in Morita '467 col. 9, lines 20-32).

However, the combination of Holmstead '905 and Morita '467 fails to specifically teach an activator that activates a plug-in in response to a command described in the predetermined file.

However, this is well known in the art as evidenced by Kirk '518. Kirk '518 discloses an activator that activates a plug-in in response to a command described in the predetermined file (i.e. the system of Kirk is similar to the system of Holmstead since both inventions involve receiving information from a web server for processing (same field of endeavor). However, the system of Kirk contains the feature of having a MIME type document activate a plug-in on the host computer's browser, or, if the plug-in is not currently loaded, commands the host computer to download the plug-in. Based on the MIME type information from the web server that commands the host computer to activate a plug-in, the system of Kirk performs the above feature; see paragraphs [0009] and [0010]).

Therefore, in view of Kirk '518, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of an activator that activates a

plug-in in response to a command described in the predetermined file, incorporated in the device of Holmstead '905, as modified by the features of Morita '467, in order to have a web server control the activities of a web browser on a computer (as stated in Kirk '518 paragraph [0010]).

Re Claim 12: Holmstead '905 discloses a method for an information processing apparatus that has a Web browser and displays a screen based on a predetermined file provided from a Web server through a network, comprising:

a step of selecting a plurality of image data to be printed according to a user operation through the screen (i.e. a graphical user interface (114) sends commands to the printer device to operate the control system (306) in a normal or schedule mode. Since the user is able to designate a print job with multiple elements for a scheduled mode for printing, this is considered as the screen the user operates to select job elements for processing. The modes selected control the printer since the control system is commanded to download print job elements specific to the mode use in order to print a print job that is generated from the print job elements, which is analogous to a plurality of image data; see paragraphs [0033] and [0060]-[0071]);

a step of activating a plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the

printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]) in response to a command described in the predetermined file;

a step of generating a first list which lists the selected image data (i.e. in the system, the control system is used to create one or a series of print job elements that are used to make up print job data that is to be acquired from a remote site, considered as a server device. The first list is in regards to the print job ticket (500) generated and stored in the input buffer (304). The job ticket stored in the input buffer represents a plurality of image data that are designated to be printed and can be acquired from a server device if needed; see figs. 3-5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]);

a step of acquiring the selected image data from the Web server using the plug-in (i.e. the Holmstead reference acquires image data identified by job element information from a server device through a network card that facilitates network communication. Since the internal components in the printer can be in a host computer coupled to a printer, the functionality of the system using a host computer with the input buffer and local memory is an alternative implementation of the method of printing image data. The input buffer inside the host computer, considered as the first list, is used to include this job element information while the local memory does not contain the

job element information, which is considered as the second list. Once the image data is acquired from the remote sites, or server, the image data is combined into a complete job in the input buffer and printed. The job elements that were added to job that were the missing elements are then stored in the local memory, considered as the cache memory. These job elements were obtained through the execution of a program that stored received data from the web server; see paragraphs [0029]-[0044]);

a step of controlling a cache memory to store the obtained image data using the plug-in (i.e. in Holmstead '905 the system can be configured to have a components of the system in a printer (100), or as a part of a host computer (206) in association with a printer (100). The host computer (206) is considered as the information processing apparatus, which has an image data memory (302). The local memory (302) has print job elements that can be transmitted to the printer (100), or acquired from the remote site, in association with the host computer (206). The elements downloaded from the remote site is stored in the local memory, which is located in the printer, and the local memory has print job information that has been designated for printing and acquired from the server device. The information stored is also from previous jobs that have been printed on the printer and the step (414) is used to store a print ready document on the printer with the previously printed job. The controller in the system controls the storing of data in the local memory; see figs. 2 and 3; paragraphs [0032]-[0044]);

a step of generating a second list of the image data stored in the cache memory (i.e. on the remote site (202), the print job components, considered as image data information, is stored. This same information that is stored is also in the print instruction

that is acquired by the control system (306). The local memory is used to store some of the print job components that have already been printed and these print job components are analogous to a plurality of image data. The local memory (302) is used to compare its components against the print job ticket temporarily stored in the input buffer, which is where the first listing of the print job components is located. Also, the local memory stores another collection of information that is comprised of elements in a job that have already been printed and the collection of information is comprised of printed image data that is stored in the local memory. Since the local memory can be comprised of EEPROM, RAM, ROM and a disk drive, multiple storage units can be used for caching and storing the information that is used to identify the cached data; see figs. 2, 3 and 5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices. Since arrangements of data on different memory devices occur, the feature of having a program list this information in different memory devices is performed; see paragraphs [0017]-[0020] and [0031]-[0034]);

a step of performing print processing to the image data stored in the cache memory using the plug-in (i.e. the compilation of the missing job elements with the elements contained in the local memory is considered as print processing and this processing is taken place by executing a program that has the printer, or system with

the host computer connected to the printer, perform the processing of the image data; see paragraphs [0029]-[0044]);

a step of comparing the first list with the second list (i.e. when the data is first received by the printer, or the host computer that is associated with the printer, the data is temporarily stored in the input buffer (304). The input buffer (304) holds the print job ticket (500) and compares the print job ticket (500) components with the components stored in the local memory (302). This comparison is between the data stored in the input buffer (304) and the data stored in the local memory (302) to see if the data matches up to the print job ticket's (500) listed components; see figs. 2-5; paragraphs [0032]-[0044]), after next images to be printed are selected and the first list is updated before performing the print processing for the next images using the plug-in (i.e. in the system, the memories storing the image data are compared to one another after the user identifies another print job to print and the input buffer (304) is updated by the set of print elements that were not totally present in the print job designated. Once the input buffer contains the print job elements, then the job elements are compiled in a complete document under the direction of the programs in the printer device or the host computer connected to the print device; see paragraphs [0033]-[0044]);

a step of controlling the cache memory to delete image data which is not included in the first list but included in the second list (i.e. in the system, the information stored in the different directories can be overwritten or erased. As disclosed in Holmstead, the image data represented through print job elements can be erased after a certain period of time. When the system has seen that the job is a certain age, it may

delete the job. This job can be a job that is not designated to be printed at the time the job reaches a certain age (i.e. 30 days old). The system has stored the image data in the local memory since the job has been printed in the past. With the job being transmitted from the host computer's local memory, considered as the cache memory, to the printer earlier than the thirty day job threshold and not being designated at the time of the thirty day time period, the feature of deleting information from the local memory is performed; see paragraph [0051]); and

a step of updating the second list after the image data is deleted from the cache memory (i.e. in the system, the local memory is updated with the information that has been obtained by the system and temporarily stored on the input buffer after the image data is received from the server device on the network; see paragraphs [0033]-[0044]), wherein the acquiring step does not acquire image data which is included in the first and second lists (i.e. in the Holmstead system, the unit that acquires the print job elements does not acquire information that the system already contains. Once the print job elements are present in the input buffer or the local memory are present, the system does not go back to the server to reacquire this same information since it is already present; see paragraphs [0029]-[0044]).

However, Holmstead '905 fails to specifically teach updating the second list on the first list and a step of activating a plug-in in response to a command described in the predetermined file.

However, this is well known in the art as evidenced by Morita '467. Morita '467 discloses updating the second list on the first list (i.e. However, the Morita reference,

like the Holmstead reference, contains a system that involves a host computer to transfer printing information to a printing device (same field of endeavor). In the system, if information on the file allocation table (26) on the RAM (17) is modified by having data written or erased from the table, the update flag related to the updating of the RAM is set to one. Next, the CPU (5) checks to see if the update flag is 1 in order to determine if the hard disk (8) needs to be updated in conformity with the RAM. In this case, if something is written on the RAM, then the same information is added on the hard disk in order for both storage devices to be consistent in reflecting the same data. The Morita reference contains a hard disk with a RAM, considered as two memory devices that contain a collection of information pertaining to image data. The Morita reference updates, or writes, the information of the RAM (17) on the hard disk device (8) to ensure that both device memories conform to each other; see figs. 5-10; col. 8, line 10 - col. 10, line 65).

Therefore, in view of Morita '467, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of updating the second list on the first list in order to have content relating to file information on one storage device conform with the content on another storage device (as stated in Morita '467 col. 9, lines 20-32).

However, the combination of Holmstead '905 and Morita '467 fails to specifically teach a step of activating a plug-in in response to a command described in the predetermined file.

However, this is well known in the art as evidenced by Kirk '518. Kirk '518 discloses a step of activating a plug-in in response to a command described in the predetermined file (i.e. the system of Kirk is similar to the system of Holmstead since both inventions involve receiving information from a web server for processing (same field of endeavor). However, the system of Kirk contains the feature of having a MIME type document activate a plug-in on the host computer's browser, or, if the plug-in is not currently loaded, commands the host computer to download the plug-in. Based on the MIME type information from the web server that commands the host computer to activate a plug-in, the system of Kirk performs the above feature; see paragraphs [0009] and [0010]).

Therefore, in view of Kirk '518, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of a step of activating a plug-in in response to a command described in the predetermined file, incorporated in the device of Holmstead '905, as modified by the features of Morita '467, in order to have a web server control the activities of a web browser on a computer (as stated in Kirk '518 paragraph [0010]).

Re Claim 13: Holmstead '905 discloses a computer-readable medium storing a computer program for a method for an information processing apparatus that has a Web browser and displays a screen based on a predetermined file provided from a Web server through a network, comprising:

a step of selecting a plurality of image data to be printed according to a user operation through the screen (i.e. a graphical user interface (114) sends commands to the printer device to operate the control system (306) in a normal or schedule mode. Since the user is able to designate a print job with multiple elements for a scheduled mode for printing, this is considered as the screen the user operates to select job elements for processing. The modes selected control the printer since the control system is commanded to download print job elements specific to the mode use in order to print a print job that is generated from the print job elements, which is analogous to a plurality of image data; see paragraphs [0033] and [0060]-[0071]);

a step of activating a plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]) in response to a command described in the predetermined file;

a step of generating a first list which lists the selected image data (i.e. in the system, the control system is used to create one or a series of print job elements that are used to make up print job data that is to be acquired from a remote site, considered as a server device. The first list is in regards to the print job ticket (500) generated and stored in the input buffer (304). The job ticket stored in the input buffer represents a plurality of image data that are designated to be printed and can be acquired from a server device if needed; see figs. 3-5; paragraphs [0032]-[0044]), using the plug-in (i.e.

the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices; see paragraphs [0017]-[0020] and [0031]-[0034]);

a step of acquiring the selected image data from the Web server using the plug-in (i.e. the Holmstead reference acquires image data identified by job element information from a server device through a network card that facilitates network communication. Since the internal components in the printer can be in a host computer coupled to a printer, the functionality of the system using a host computer with the input buffer and local memory is an alternative implementation of the method of printing image data. The input buffer inside the host computer, considered as the first list, is used to include this job element information while the local memory does not contain the job element information, which is considered as the second list. Once the image data is acquired from the remote sites, or server, the image data is combined into a complete job in the input buffer and printed. The job elements that were added to job that were the missing elements are then stored in the local memory, considered as the cache memory. These job elements were obtained through the execution of a program that stored received data from the web server; see paragraphs [0029]-[0044]);

a step of controlling a cache memory to store the obtained image data using the plug-in (i.e. in Holmstead '905 the system can be configured to have a components of the system in a printer (100), or as a part of a host computer (206) in association with a

printer (100). The host computer (206) is considered as the information processing apparatus, which has an image data memory (302). The local memory (302) has print job elements that can be transmitted to the printer (100), or acquired from the remote site, in association with the host computer (206). The elements downloaded from the remote site is stored in the local memory, which is located in the printer, and the local memory has print job information that has been designated for printing and acquired from the server device. The information stored is also from previous jobs that have been printed on the printer and the step (414) is used to store a print ready document on the printer with the previously printed job. The controller in the system controls the storing of data in the local memory; see figs. 2 and 3; paragraphs [0032]-[0044]);

a step of generating a second list of the image data stored in the cache memory (i.e. on the remote site (202), the print job components, considered as image data information, is stored. This same information that is stored is also in the print instruction that is acquired by the control system (306). The local memory is used to store some of the print job components that have already been printed and these print job components are analogous to a plurality of image data. The local memory (302) is used to compare its components against the print job ticket temporarily stored in the input buffer, which is where the first listing of the print job components is located. Also, the local memory stores another collection of information that is comprised of elements in a job that have already been printed and the collection of information is comprised of printed image data that is stored in the local memory. Since the local memory can be comprised of EEPROM, RAM, ROM and a disk drive, multiple storage units can be used for caching

and storing the information that is used to identify the cached data; see figs. 2, 3 and 5; paragraphs [0032]-[0044]), using the plug-in (i.e. the Examiner considers the programs executed by the computer connected to the printer, or the programs in the printer itself, as plug-in programs because these programs are used to obtain the print data information from the web and store this information either in the host computer to be passed to the printer or in the printer's memory devices. Since arrangements of data on different memory devices occur, the feature of having a program list this information in different memory devices is performed; see paragraphs [0017]-[0020] and [0031]-[0034]);

a step of performing print processing to the image data stored in the cache memory using the plug-in (i.e. the compilation of the missing job elements with the elements contained in the local memory is considered as print processing and this processing is taken place by executing a program that has the printer, or system with the host computer connected to the printer, perform the processing of the image data; see paragraphs [0029]-[0044]);

a step of comparing the first list with the second list (i.e. when the data is first received by the printer, or the host computer that is associated with the printer, the data is temporarily stored in the input buffer (304). The input buffer (304) holds the print job ticket (500) and compares the print job ticket (500) components with the components stored in the local memory (302). This comparison is between the data stored in the input buffer (304) and the data stored in the local memory (302) to see if the data matches up to the print job ticket's (500) listed components; see figs. 2-5; paragraphs

[0032]-[0044]), after next images to be printed are selected and the first list is updated before performing the print processing for the next images using the plug-in (i.e. in the system, the memories storing the image data are compared to one another after the user identifies another print job to print and the input buffer (304) is updated by the set of print elements that were not totally present in the print job designated. Once the input buffer contains the print job elements, then the job elements are compiled in a complete document under the direction of the programs in the printer device or the host computer connected to the print device; see paragraphs [0033]-[0044]);

a step of controlling the cache memory to delete image data which is not included in the first list but included in the second list (i.e. in the system, the information stored in the different directories can be overwritten or erased. As disclosed in Holmstead, the image data represented through print job elements can be erased after a certain period of time. When the system has seen that the job is a certain age, it may delete the job. This job can be a job that is not designated to be printed at the time the job reaches a certain age (i.e. 30 days old). The system has stored the image data in the local memory since the job has been printed in the past. With the job being transmitted from the host computer's local memory, considered as the cache memory, to the printer earlier than the thirty day job threshold and not being designated at the time of the thirty day time period, the feature of deleting information from the local memory is performed; see paragraph [0051]); and

a step of updating the second list after the image data is deleted from the cache memory (i.e. in the system, the local memory is updated with the information that has

been obtained by the system and temporarily stored on the input buffer after the image data is received from the server device on the network; see paragraphs [0033]-[0044]), wherein the acquiring step does not acquire image data which is included in the first and second lists (i.e. in the Holmstead system, the unit that acquires the print job elements does not acquire information that the system already contains. Once the print job elements are present in the input buffer or the local memory are present, the system does not go back to the server to reacquire this same information since it is already present; see paragraphs [0029]-[0044]).

However, Holmstead '905 fails to specifically teach updating the second list on the first list and a step of activating a plug-in in response to a command described in the predetermined file.

However, this is well known in the art as evidenced by Morita '467. Morita '467 discloses updating the second list on the first list (i.e. However, the Morita reference, like the Holmstead reference, contains a system that involves a host computer to transfer printing information to a printing device (same field of endeavor). In the system, if information on the file allocation table (26) on the RAM (17) is modified by having data written or erased from the table, the update flag related to the updating of the RAM is set to one. Next, the CPU (5) checks to see if the update flag is 1 in order to determine if the hard disk (8) needs to be updated in conformity with the RAM. In this case, if something is written on the RAM, then the same information is added on the hard disk in order for both storage devices to be consistent in reflecting the same data. The Morita reference contains a hard disk with a RAM, considered as two memory devices

that contain a collection of information pertaining to image data. The Morita reference updates, or writes, the information of the RAM (17) on the hard disk device (8) to ensure that both device memories conform to each other; see figs. 5-10; col. 8, line 10 - col. 10, line 65).

Therefore, in view of Morita '467, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of updating the second list on the first list in order to have content relating to file information on one storage device conform with the content on another storage device (as stated in Morita '467 col. 9, lines 20-32).

However, the combination of Holmstead '905 and Morita '467 fails to specifically teach a step of activating a plug-in in response to a command described in the predetermined file.

However, this is well known in the art as evidenced by Kirk '518. Kirk '518 discloses a step of activating a plug-in in response to a command described in the predetermined file (i.e. the system of Kirk is similar to the system of Holmstead since both inventions involve receiving information from a web server for processing (same field of endeavor). However, the system of Kirk contains the feature of having a MIME type document activate a plug-in on the host computer's browser, or, if the plug-in is not currently loaded, commands the host computer to download the plug-in. Based on the MIME type information from the web server that commands the host computer to activate a plug-in, the system of Kirk performs the above feature; see paragraphs [0009] and [0010]).

Therefore, in view of Kirk '518, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of a step of activating a plug-in in response to a command described in the predetermined file, incorporated in the device of Holmstead '905, as modified by the features of Morita '467, in order to have a web server control the activities of a web browser on a computer (as stated in Kirk '518 paragraph [0010]).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Ichihara (USP 7023575) discloses an image data printing system and image data printing method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAD DICKERSON whose telephone number is (571)270-1351. The examiner can normally be reached on 9:30-6:00pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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